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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,483	01/25/2002	Edward-Bruce Baker	55-101.1	3572

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05/28/2003

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EXAMINER

NGUYEN, KIEN T

ART UNIT

PAPER NUMBER

3712

DATE MAILED: 05/28/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Appli ation No.

10/057,483

Applicant(s)

BAKER ET AL.

Examiner

Kien T. Nguyen

Art Unit

3712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 7, 13, 14, 15, 16, 31, 32, 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Borta U.S. Patent 6,445,960.

Borta disclosed a motion simulator comprising a support plate (12); a pedestal support (38) rigidly connected to the support plate and having a coupling joint (44) at the other end (see Fig. 2); a motion plate (14) for supporting a rider and coupled to the coupling joint (44); a plurality of drive assemblies (58) mounted to the support plate, each of the drive assemblies having a motor (58) coupled to the motion base by a drive arm linkage (70) and a controller (80) (see Fig. 5) for generating a motor control signal to reposition the motion plate by changing the relative orientation of the drive arm with respect to the other drive arms (applicant's claims 1 and 31). The controller (80) includes means (82) for generating a frequency-modulated signal for driving the motor and for maintaining torque within a selected range while operating the motor (see column 7) (applicant's claims 7 and 32). Each of the motors (58) is AC electric motor (column 7, line 20) (applicant's claim 13). Each of the drive assembly includes an

Art Unit: 3712

electric motor (58) having a drive shaft (78) (see Fig. 1), a gearbox (66) coupled to the shaft, means (83) for detecting or sensing the position of the motion plate coupled to the gearbox, a rectangular crank (68) connected to the gearbox and to the drive arm linkage at the other end as shown in Fig. 1 (applicant's claims 14 and 33). The drive arm linkage includes a lower eyebolt (72), a first rod end connector (not numbered) connected to the lower eyebolt for rotatably coupling the arm to the crank (68), an upper bolt (74), a second rod end connector (not numbered) connected to the upper eyebolt for rotatably coupling the arm to the motion plate, and a rigid push rod (70) connecting the upper eyebolt to the lower eyebolt (applicant's claim 15). The motion plate also includes a flange (see Fig. 2) coupled to the upper eyebolt by the second rod end connector (74) and means (44) for coupling the motion plate to a universal joint (P).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-6, 17-30, 39-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borta in view of Barr U.S. Patent 5,711,670.

Borta disclosed all of the structural limitations as set forth in these claims except for the display device positioned proximate to the motion plate and means for generating and synchronized audio/video signals for the display and for generating a frequency modulated signal for driving the motor. However, Barr disclosed a motion

Art Unit: 3712

base ride simulator comprising a motion base (18) having a display (14) positioned proximate to the motion base and means (12) for generating audio/video signals, and means (30) for synchronizing the audio/video signal for the display and generating a frequency modulated signal for driving actuators (26). Therefore, it would have been obvious to one of ordinary skill in the art to modify the motion platform of Borta with the teachings as discussed above by Barr for the advantage of enhancing the realism of the ride or game.

Claims 8-12, 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borta.

It is noted that Borta only showed two-axis motion base instead four, five, or six-axis with each axis is controlled by an electrical motor as set forth in these claims. However, such difference is merely multiplication of the same part (drive assembly 58). Therefore, it would have been a matter of design choice to provide additional drive assembly (58) at other positions around the motion plate (14) of Borta for the purpose of enhancing the motions of the plate.

Regarding claims 11 and 12, it is noted that the support plate (14) of Borta is a rectangular frame instead of rigid steel plate or ballast as set forth in these claims. However, the use of rigid steel plate and ballast as support plate for motion base is very well known in the art as can be seen the attached references and such support plate is typically dictated by the weight of the top enclosure. Therefore, it would have been a matter of design choice to modify the frame of Borta with any well-known steel plate and/or ballast for the purpose of increasing its rigidity.

Art Unit: 3712

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The enclosed references show various types of motion base.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kien T. Nguyen whose telephone number is (703) 308-2493. The examiner can normally be reached on 7:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (703) 308-1745. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3579 for regular communications and (703) 305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

Kien T. Nguyen
Primary Examiner
Art Unit 3712

Ktn
May 22, 2003